

NOV 06 1995



#1808

November 2, 1995

Matt Moran
State of Vermont
Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main St./West Bldg.
Waterbury, VT 05671-0404

RE: Wells River Jiffy Mart

Dear Mr. Moran:

Enclosed is the report on the site assessment at the Wells River Jiffy Mart, conducted by Griffin International. Since this site assessment was conducted on the Site Investigation Expressway, I do not have a site number for it.

Please call me with any questions that you may have about this site or the report.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peter M. Murray".

Peter M. Murray
Principal Hydrogeologist

cc: Dennis Boise, COCO

encl.

**SITE ASSESSMENT REPORT
WELLS RIVER JIFFY MART
WELLS RIVER, VERMONT**

October 24, 1995

PREPARED FOR:

**Champlain Oil Company
P.O. Box 2126
South Burlington, Vermont 05407**



**Griffin International Inc.
P.O. Box 943 / 19 Commerce Street
Williston, VT 05495
(802) 865-4288**

Griffin Project #5954687

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I. INTRODUCTION

This report details the site assessment at the Wells River Jiffy Mart that has been conducted by Griffin International, Inc. (Griffin) for Champlain Oil Company, owner of the Jiffy Mart. The site assessment has been conducted to determine the degree and extent of subsurface petroleum contamination that resulted from releases of petroleum product in the vicinity of three underground storage tanks (USTs) that were permanently closed at the site in June, 1995. This report identifies potential and impacted receptors of the contamination and assesses the risks that the contamination poses to the receptors. Conclusions and recommendations for additional assessment at this site are also included.

II. SITE BACKGROUND

A. Site History

On June 5 and June 6, 1995, three gasoline USTs were permanently closed at the Wells River Jiffy Mart. A UST closure inspection was conducted by Griffin and the closure report was submitted to the State of Vermont Department of Environmental Conservation (VTDEC). The three tanks had been in use for eleven years and all were in good condition at the time of closure. The varying concentrations of petroleum contamination detected in soils surrounding the tanks may have been the result of overfills of the tanks or the result of releases from tanks that had been in service at this site prior to installation of the tanks that were closed in June. Two new USTs were installed as replacements for the closed tanks.

Based on the detection of soil contamination surrounding the former USTs, COCO decided to enter the Site Investigation Expressway, which allows for a site assessment to be conducted without the written approval of VTDEC. Griffin submitted a work plan for the site assessment to COCO. COCO approved of the work plan on August 7, 1995. Three groundwater monitoring wells were installed at the site on August 16. Groundwater samples were collected from the three wells on August 23 for laboratory analysis. Water table elevations were also measured in on-site wells on that date.

B. Site Description

The Wells River Jiffy Mart is located at the southern end of the Village of Wells River, Vermont, at the intersection of Route 5 and Route 302. The site is located approximately 100 feet west of the Wells River which flows south and east of the site to its confluence with the Connecticut River, approximately 1,000 feet east of the site. The site is at an approximate elevation of 420 feet above sea level and is situated in the Wells River/Connecticut River flood plain. The valley wall rises gradually

to the west of the site for approximately 800 feet and then rises steeply.

The Wells River is channeled through twenty foot high, concrete retaining walls where it flows past the site. Local storm runoff flows into catch basins and into the river via a culvert that extends from the retaining wall approximately ten feet above the bottom of the wall. The Wells River may be a losing stream in the vicinity of the Jiffy Mart. Regional groundwater flow is likely east/southeast, toward the Connecticut River.

The Surficial Geologic Map of Vermont indicates that the overburden in this area consists of recent alluvial deposits. The Centennial Geologic Map of Vermont indicates that bedrock beneath the site is part of the Albee formation which consists of quartzite and feldspathic quartzite. The depth to bedrock in this area is at least 80 feet below grade.

The Village of Wells River consists of a mixture of land uses including residential and commercial. All homes and businesses in the area are served by the municipal water system which is supplied by an 80 foot deep gravel supply well located approximately 500 feet north of the site. This Village supply well is located behind the Town Library, on the west side of Main Street (Routes 5 and 302). All homes and businesses in the area are also served by the municipal sewer system.

III. SITE ASSESSMENT

A. Monitoring Well Installation

On August 16, 1995, three groundwater monitoring wells were installed at the site. The wells were installed by Green Mountain Boring, of Barre, Vermont, under the direct supervision of a Griffin hydrogeologist. The wells were drilled using a hollow stem auger with 4.25 inch inner diameter augers. Undisturbed soil samples were collected from the boreholes for the monitoring wells at five foot intervals using a split spoon sampler. The samples were logged by the hydrogeologist and screened for volatile organic compounds (VOCs) using a portable photo-ionization device (PID). Each well was constructed of two inch diameter, PVC well screen and riser. The wells were completed at grade with flush mounted, eight inch diameter well covers. Well construction details, soil characteristics and VOC concentrations are listed on the wells logs, in Appendix B. Monitoring well locations are shown on the Site Map, in Appendix A.

Monitoring Well 1 (MW-1) is located directly east of the former and existing UST locations, on the west side of Main Street (Route 5). This well was drilled to determine the vertical extent and degree of contamination in the source area. It was drilled to a depth of twenty feet below grade. The water table was encountered at an approximate depth of 15 feet below grade. Soils encountered in this borehole consisted of fine to coarse sand, silt and gravel. VOC concentrations detected in

this borehole ranged from non-detect (ND) to 240 parts per million (ppm) at the water table.

Monitoring Well 2 (MW-2) is located on the east side of Main Street, across from the Jiffy Mart, approximately 20 feet from the concrete retaining wall along the river. This well was drilled to determine the downgradient extent of contamination and to determine if the river is at risk of impact from on-site contamination. It was also drilled to a depth of twenty feet below grade. Soils in this borehole also consisted of fine to coarse sand, gravel and silt. The water table in this well was encountered at an approximate depth of 14 feet. VOC concentrations in soils collected from the borehole ranged from ND to 0.5 ppm.

Monitoring Well 3 (MW-3) is also located on the east side of Main Street, across from the site. Soils encountered in this borehole were similar to those found in the other two boreholes. The water table in this well is also at a depth of 14 feet. VOC concentrations detected in soil samples collected from this borehole ranged from ND to 1.5 ppm.

Upon completion of the three wells, each was developed by purging with a clean bailer. Recharge in the three wells was rapid.

B. Groundwater Flow Direction and Gradient Determination

On August 23, prior to collecting water samples from the three on-site monitoring wells, static water table elevations in each well were measured. The top of casing elevation of MW-1 was used as a benchmark and was assigned an arbitrary elevation of 100 feet. Relative water table elevations were then calculated using this benchmark. The table in Appendix C summarizes water table elevation measurements for this date. The water table elevations were then used to prepare the Groundwater Contour Map, in Appendix A.

The Groundwater Contour Map indicates that groundwater in the vicinity of the Jiffy Mart flows southwest, at a hydraulic gradient of 0.003. This is a very slight gradient and the measurements indicate that the water table is relatively horizontal in this area. The water table likely slopes both toward and away from the river at various times of the year due to variations in groundwater recharge rates and flow volumes through the river.

C. Groundwater Sampling and Analysis

On August 23, 1995, groundwater samples were collected from the three on-site monitoring wells. In addition, a trip blank, a duplicate and an equipment blank were collected as per VTDEC QA/QC requirements. The samples were collected as per Griffin's Groundwater Sampling Protocol. The samples were analyzed by Endyne, Inc. for BTEX (Benzene, Toluene, Ethylbenzene and Xylenes) and for MTBE by EPA Method 602.

Analysis of the sample collected from MW-1, which is located immediately east of the former tank pit and existing USTs, indicate that groundwater in this area has been impacted by low concentrations of the above petroleum compounds. A Benzene concentration of 5.9 parts per billion (ppb) was detected in this sample. The State of Vermont Groundwater Enforcement Standard (VGES) for this compound is 5.0 ppb. The remainder of the compounds were detected at concentrations below their respective VGES. Ethylbenzene was detected in the sample collected from this well in a concentration of 12.7 ppb. Toluene was detected at a concentration of 63.1 ppb. Xylenes were detected at a concentration of 256 ppb and MTBE was detected at a concentration of 11.3 ppb. No BTEX or MTBE were detected in samples collected from MW-2 or from MW-3. Table 1 summarizes the results of groundwater analysis at this site.

D. Receptor Survey

During the course of this site assessment, Griffin has conducted a survey of potential receptors of subsurface petroleum contamination in the vicinity of the Wells River Jiffy Mart. During the UST closure inspection, soils in the vicinity of the tanks were determined to have been impacted by gasoline that had been released near the tanks. The sources of the released gasoline were likely overfills of the tanks that were closed in June, 1995 and from possible leaks in the tanks and piping that were replaced at this site approximately eleven years ago.

Additional potential receptors include groundwater at or near the site and surface water in the Wells River. Sampling and analysis of groundwater in the vicinity of the former USTs indicate that groundwater in the immediate vicinity of the tanks contains petroleum contamination at or below Vermont Groundwater Enforcement Standards. During this site assessment, no visible indications of petroleum impact to the river was observed and no impacts have been reported.

The Jiffy Mart building is located approximately 25 feet west of the former USTs and is constructed on a concrete slab at grade. Other buildings in the area do have basements which extend between five and ten feet below grade. The closest building to the former USTs, a multi unit apartment building is located over 90 feet to the north. No vapors were detected in the Jiffy Mart building by PID during this site assessment and no vapors have been reported in the apartment building. A single family residence is located approximately 100 feet south of the Jiffy Mart. It appears to have a full basement. A gas station is located on the northeast corner of the intersection of Routes 5 and 302. The building is constructed on a concrete slab.

TABLE 1.

**Groundwater Quality Summary
Wells River Jiffy Mart
Wells River, Vermont**

Monitoring Date: 8/23/95
All Values Reported in ug/L (ppb)

PARAMETER				Enforcement Standard
	MW1	MW2	MW3	
Benzene	5.9	ND>1	ND>1	5.0*
Chlorobenzene	ND>1	ND>1	ND>1	100**
1,2-DCB	ND>1	ND>1	ND>1	600*
1,3-DCB	ND>1	ND>1	ND>1	600**
1,4-DCB	ND>1	ND>1	ND>1	75*
Ethylbenzene	12.7	ND>1	ND>1	700**
Toluene	63.1	ND>1	ND>1	1,000**
Xylenes	256.0	ND.>1	ND>1	10,000**
Total BTEX	338.			-
MTBE	11.3	ND>10	ND>10	40**
BTEX+MTBE	349.			-

* - EPA Maximum Contaminant Level

** - VT Health Advisory Level

ANALYSIS BY EPA METHOD 602

ND> - None detected above stated limits

TBQ - Trace, below stated quantitation limit

IV. RISK ASSESSMENT

The Village Supply well is located approximately 500 feet north of the Jiffy Mart, behind the Library, on the west side of Main Street. It is reportedly an 80 foot deep gravel well that supplies water to all homes and businesses in the Village. There are no known private supply wells within one half mile of the site. As the Village supply well is located north of the site and the regional groundwater flow in this area is likely to the east or southeast, the supply well is likely located upgradient of the site. Water from the supply well is analyzed once per year for VOCs, as per VTDEC Water Supply Division requirements. According to Mr. Billy Kahn, of the Water Supply Division, the most recent analysis of water from the Village supply well occurred on June 23, 1995. The analysis indicated that the well contains various Tri-halo-methanes, none of which are petroleum related, and no BTEX or MTBE. Based on the location of this well in relation to the site and on the lack of detectable concentrations of BTEX or MTBE in the well, it is unlikely that the Village supply well will be impacted by the low VOC concentrations in groundwater at the Jiffy Mart. This well may be at risk of impact from other contaminant sources closer to it, however, including possible abandoned USTs, surface spills, bacteria and road salt.

Since groundwater between the tanks and the river contains no detectable contamination, both the river and groundwater downgradient of the site are not likely at risk of future impact.

Since the Jiffy Mart building is constructed on a concrete slab, it is not likely to be impacted by petroleum vapors due to the low source strength and distance from the source area. Due to the low source strength and their proximity to the former Jiffy Mart USTs, other buildings in the area are not likely at risk of vapor impact resulting from past petroleum releases at the Jiffy Mart.

V. CONCLUSIONS

Based on information obtained during the June, 1995 UST closure inspection and this site assessment, we have arrived at the following conclusions regarding subsurface petroleum contamination at the Wells River Jiffy Mart and the risks that it poses to potential and impacted receptors:

1. There have been releases of gasoline to the subsurface in the vicinity of on-site USTs. The amount and duration of the releases have not been determined. Future releases of petroleum to the subsurface at this site are not likely due to the upgraded petroleum storage and dispenser systems at this site.
2. The releases have resulted in adsorbed soil contamination in the vadose zone and low concentrations of dissolved contamination in groundwater in the immediate vicinity of

the USTs. No free floating contamination has been detected at this site. The extent of soil and groundwater contamination have not been fully defined. However, it is assumed that the contamination does not extend off-site.

3. The principal route of contaminant migration at this site is via migrating groundwater. Since the water table at this site is at an approximate depth of 15 feet and underground utilities are no deeper than ten feet below grade, it is not likely that underground utilities in this area are acting as preferential pathways for migrating contamination.
4. Although the local water table was determined to be sloping away from the river, toward the southwest, on August 23, the average regional groundwater flow direction is likely toward the east/southeast. Groundwater flow directions and rates in this area vary due to seasonal changes in groundwater recharge and river flow volumes.
5. Potential receptors of subsurface petroleum contamination at this site include off-site groundwater, several buildings in the area, the Village of Wells River supply well and the Wells River. Due to the low source strength and the apparent limited extent of contamination, it is not likely that any of these receptors will be impacted. Groundwater between the river and the site has not been impacted and annual analysis of water from the Village supply well has indicated that the well has not been impacted.
6. Over time, existing soil and groundwater contamination at this site will be reduced to non-detectable concentrations due to the processes of dispersion, dilution and bio-degradation.

VI. RECOMMENDATIONS

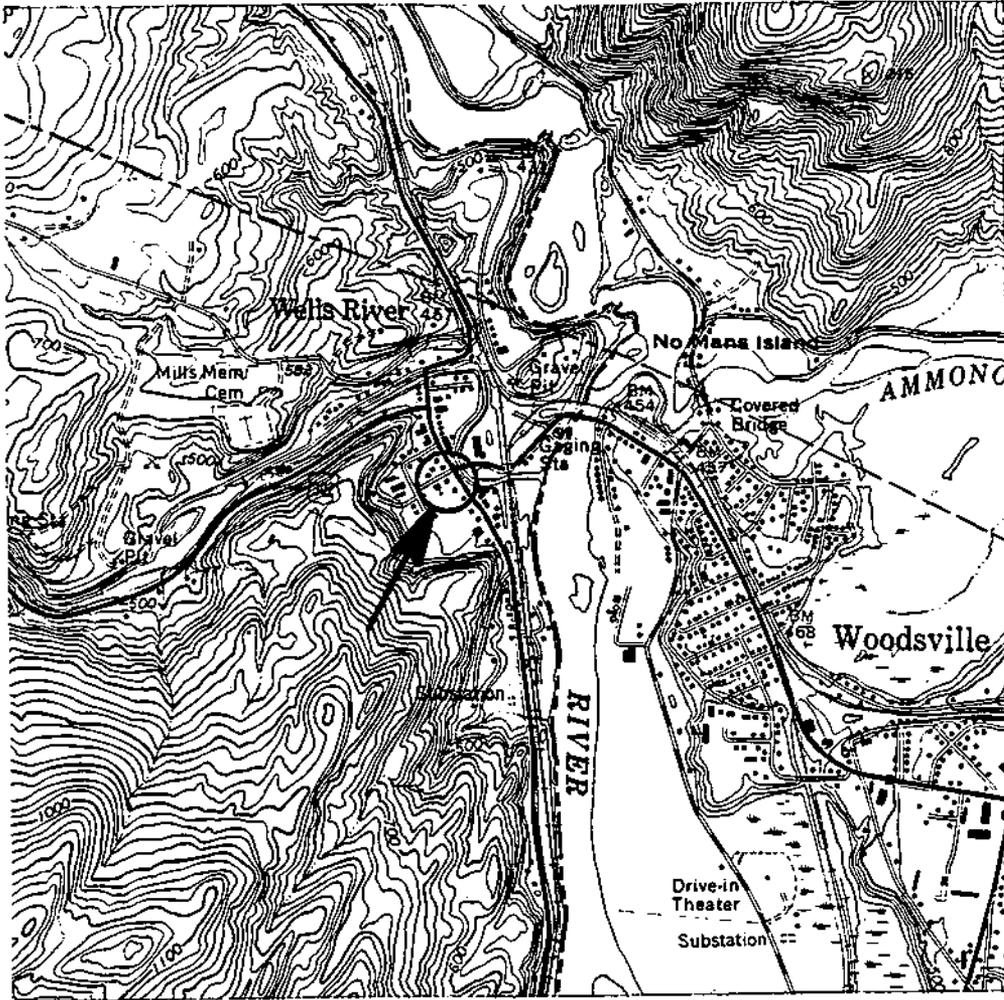
Based on the above conclusions, we present the following recommendations:

1. Due to the low risks posed by existing subsurface petroleum contamination at this site, we do not recommend active remediation at this time. Instead, it is acceptable to allow natural processes to reduce contamination concentrations over time.
2. To document the expected reduction in groundwater contamination and to verify that the river and Village supply well are not at risk of impact, we recommend the collection and analysis of groundwater from the three on-site monitoring wells in August, 1996. At that time, the elevation of the river should be measured relative to the water table to determine if the river is a gaining or losing stream. Results of the 1996 annual analysis of water from

the Village supply well should also be examined. This data should be summarized in a report that will be forwarded to VTDEC. If groundwater contamination concentrations remain at or below VGES and no receptors have been impacted, we will recommend the site be removed from the Active Hazardous Waste Sites.

APPENDIX A

Site Maps



JOB #: 5954887
 SOURCE: USGS- WOODSVILLE, VT. - N.H.

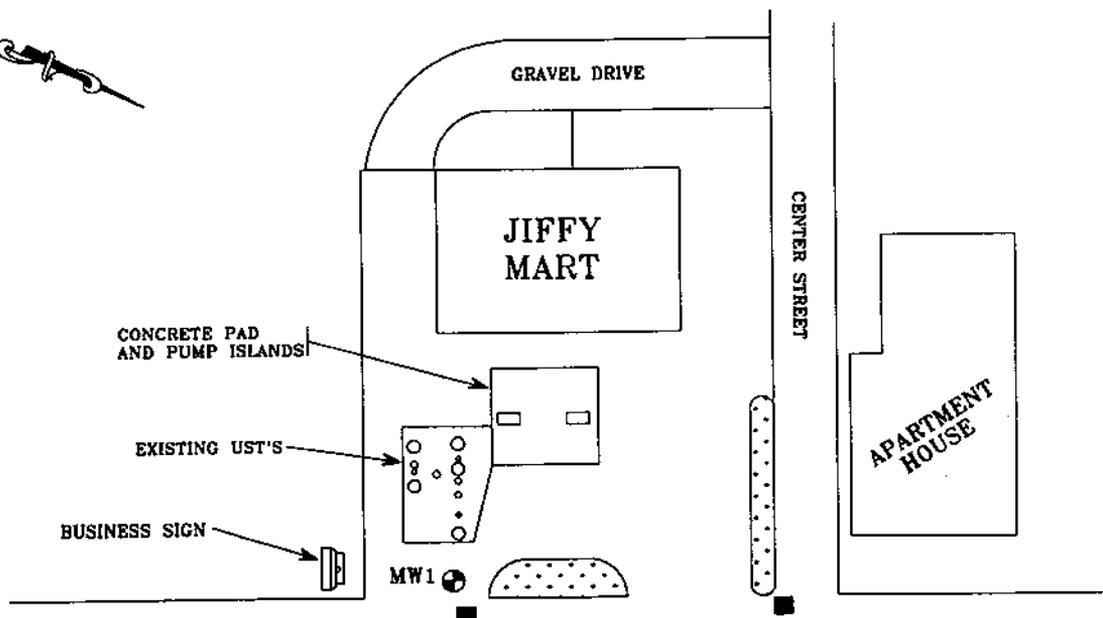


JIFFY MART

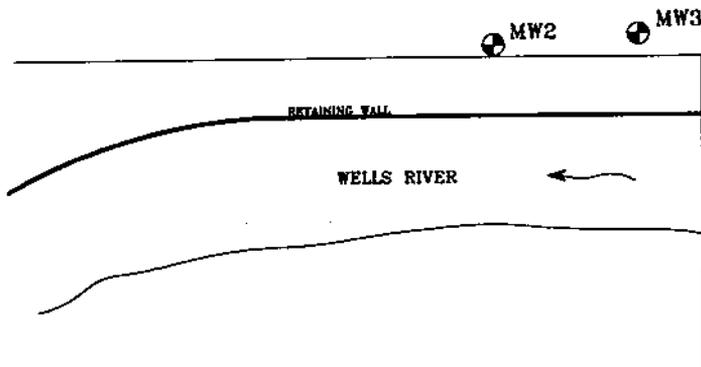
WELLS, RIVER, VERMONT

SITE LOCATION MAP

DATE: 8/17/95	DWG. #: 1	SCALE: 1:24000	DRN.: SB	APP.: PM
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U.S. ROUTE 5



U.S. RT. 302

LEGEND

-  MW2 MONITORING WELL
-  SW1 SUPPLY WELL
-  STORM DRAIN

JOB #: 5954687

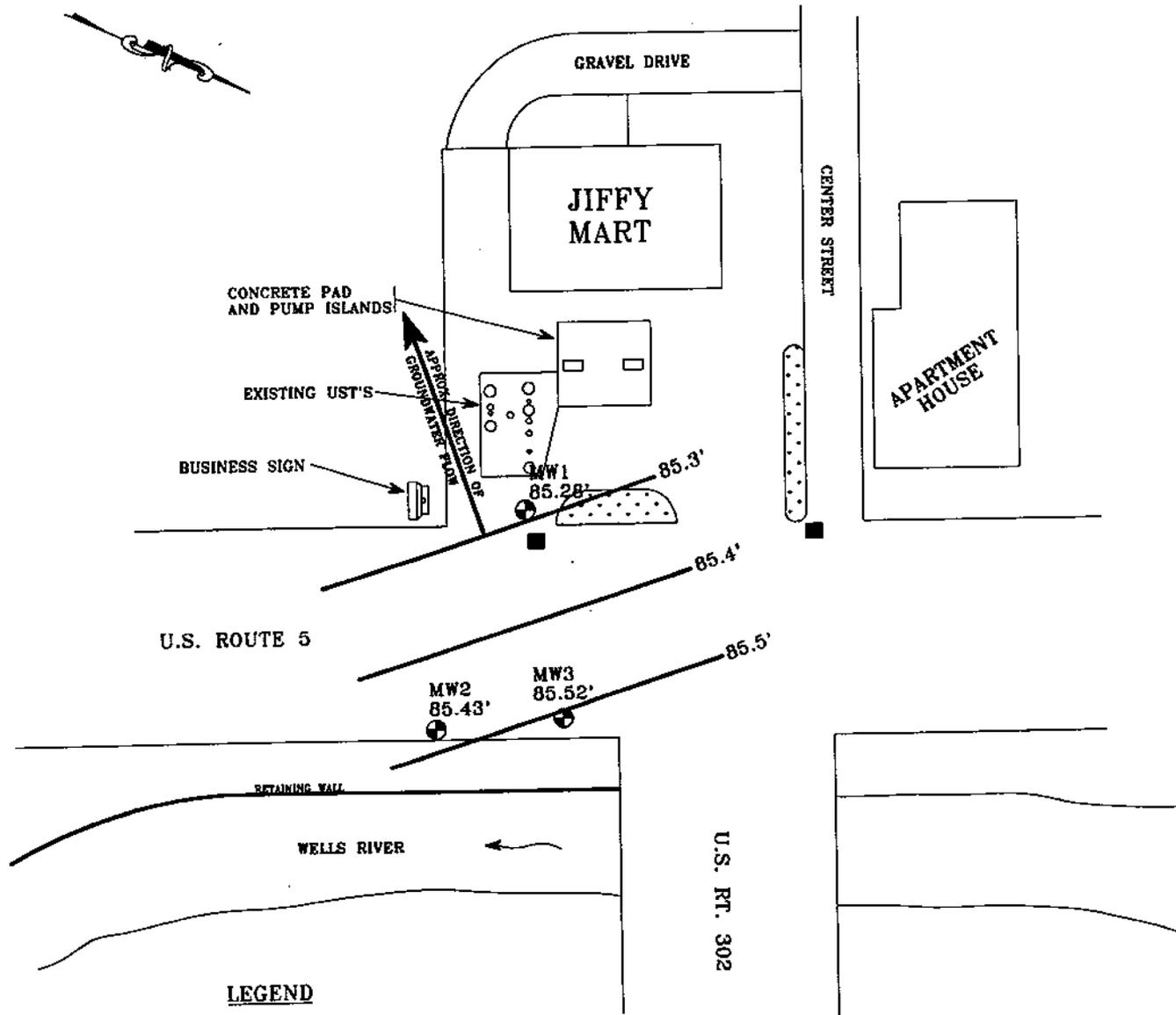


JIFFY MART

WELLS, RIVER, VERMONT

SITE MAP

DATE: 8/24/95 DWG.#: 2 SCALE: 1"=50' DRN.:SB APP.:PM



LEGEND

- MW2 MONITORING WELL AND WATER TABLE ELEVATION IN FEET
- ⊙ XXX
- XX GROUNDWATER CONTOUR IN FEET (DASHED WHERE INFERRED)
- STORM DRAIN

chart states 8/23

JOB #: 5954687
DATE MEASURED: 8/22/95



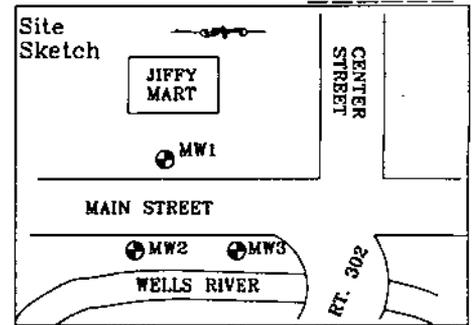
JIFFY MART		VERMONT	
WELLS, RIVER,			
GROUNDWATER CONTOUR MAP			
DATE: 8/25/95	DWG.#: 3	SCALE: 1"=50'	DRN.:SB APP.:PM

APPENDIX B

Well Logs

PROJECT JIFFY MART
 LOCATION WELLS RIVER, VERMONT
 DATE DRILLED 8/16/95 TOTAL DEPTH OF HOLE 20'
 DIAMETER 4.25"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE 0.010"
 CASING DIA. 2" LENGTH 9.33' TYPE sch 40 pvc
 DRILLING CO. GMB DRILLING METHOD HSA
 DRILLER RON & DAVE LOG BY P. MURRAY

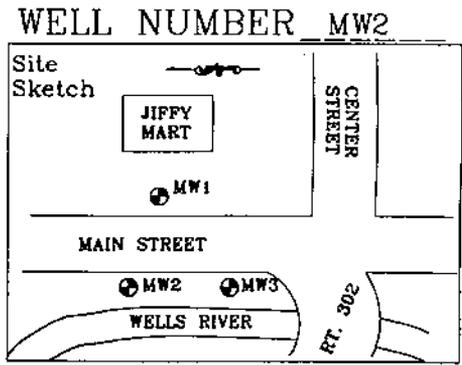
WELL NUMBER MW1



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
0		LOCKING WELL CAP			0
1		CONCRETE			1
2		BENTONITE	0'-5'	Brown fine to medium SAND, some silt, little gravel, dry, no odor.	2
3			0 ppm		3
4					4
5					5
6		WELL RISER	5'-7'- 2/2/3/6	Brown fine SAND, little silt and gravel, damp.	6
7			4.5 ppm		7
8					8
9		SAND PACK			9
10					10
11			10'-12'- 26/53	Fine to coarse SAND and GRAVEL, dry, no odor.	11
12			5.5 ppm		12
13					13
14		WELL SCREEN	12'-15'	14.7' WATER TABLE	14
15			240 ppm		15
16			15'-17'- 3/3/4/5	Light brown medium SAND, wet, little petroleum odor.	16
17			7.0 ppm		17
18					18
19		BOTTOM CAP			19
20		UNDISTURBED NATIVE SOIL		BASE OF WELL AT 20'	20
21				END OF EXPLORATION AT 20'	21
22					22
23					23
24					24
25					25

PROJECT JIFFY MART
 LOCATION WELLS RIVER, VERMONT
 DATE DRILLED 8/16/95 TOTAL DEPTH OF HOLE 20'
 DIAMETER 4.25"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE 0.010"
 CASING DIA. 2" LENGTH 9.33' TYPE sch 40 pvc
 DRILLING CO. GMB DRILLING METHOD HSA
 DRILLER RON & DAVE LOG BY P. MURRAY

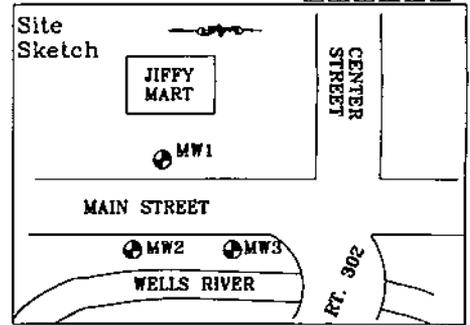


GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	ROAD BOX	LOCKING WELL CAP			0
1	CONCRETE				1
2	BENTONITE		0'-5' 0 ppm	Brown fine to coarse SAND and GRAVEL, dry, no odor.	2
3					3
4					4
5					5
6	WELL RISER		5'-7'- 5/6/7/17 0.5 ppm	Medium SAND, little gravel, dry to damp, no odor.	6
7					7
8					8
9	SAND PACK				9
10					10
11			10'-12'- 5/11/6/8 0 ppm	Light brown medium to coarse SAND, little gravel, damp, no odor.	11
12					12
13					13
14	WELL SCREEN			14.0' WATER TABLE	14
15					15
16			15'-17'- 1/1/1/1 0 ppm	Gray, coarse SAND, trace silt, wet, no odor	16
17					17
18					18
19	BOTTOM CAP				19
20	UNDISTURBED NATIVE SOIL			BASE OF WELL AT 20' END OF EXPLORATION AT 20'	20
21					21
22					22
23					23
24					24
25					25

PROJECT JIFFY MART
 LOCATION WELLS RIVER, VERMONT
 DATE DRILLED 8/16/95 TOTAL DEPTH OF HOLE 20'
 DIAMETER 4.25"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE 0.010"
 CASING DIA. 2" LENGTH 9.33' TYPE sch 40 pvc
 DRILLING CO. GMB DRILLING METHOD HSA
 DRILLER RON & DAVE LOG BY P. MURRAY

WELL NUMBER MW3



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	ROAD BOX	LOCKING WELL CAP			0
1	CONCRETE				1
2	BENTONITE		0'-5' 0 ppm	SAND and GRAVEL	2
3					3
4					4
5					5
6	WELL RISER		5'-7'- 6/10/13/12 0 ppm	Brown medium SAND, some gravel, dry.	6
7					7
8					8
9	SAND PACK				9
10					10
11			10'-12'- 12/6/15/34 1.5 ppm	Brown SILT, some sand, little gravel, bony gravel at 11'. moist, no odor.	11
12					12
13					13
14	WELL SCREEN			14.3' WATER TABLE	14
15					15
16			15'-17'- 1/2/1/1 0.2 ppm	Gray, coarse SAND, little silt, wet, no odor.	16
17					17
18					18
19	BOTTOM CAP				19
20	UNDISTURBED NATIVE SOIL			BASE OF WELL AT 20' END OF EXPLORATION AT 20'	20
21					21
22					22
23					23
24					24
25					25

APPENDIX C

Liquid Level Data

Liquid Level Monitoring Data
Wells River Jiffy Mart
Wells River, Vermont

*map states
8/22*

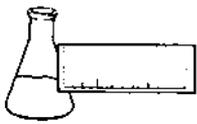
Monitoring Date: 8/23/95

Well I.D.	Well Depth	Top of Casing Elevation	Depth To Product	Depth To Water	Corrected Water Table Elevation
MW1	20.00	100.00	-	14.72	85.28
MW2	20.00	99.59	-	14.16	85.43
MW3	20.00	99.86	-	14.34	85.52

*Note: Elevations based on arbitrary datum with the top of casing of MW-1 set at 100 feet.

APPENDIX D

Laboratory Results



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Jiffy Mart
REPORT DATE: September 5, 1995
DATE SAMPLED: August 23, 1995

PROJECT CODE: GIJM1930
REF.#: 78,633 - 78,638

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated samples were preserved with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

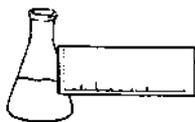
Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

RECEIVED SEP - 7 1995



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Jiffy Mart
REPORT DATE: September 5, 1995
DATE SAMPLED: August 23, 1995
DATE RECEIVED: August 24, 1995
DATE ANALYZED: August 29, 1995

PROJECT CODE: GIJM1930
REF.#: 78,635
STATION: MW #2
TIME SAMPLED: 14:15
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

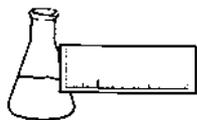
Bromobenzene Surrogate Recovery: 107%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

RECEIVED



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Jiffy Mart
REPORT DATE: September 5, 1995
DATE SAMPLED: August 23, 1995
DATE RECEIVED: August 24, 1995
DATE ANALYZED: September 5, 1995

PROJECT CODE: GIJM1930
REF.#: 78,634
STATION: MW #3
TIME SAMPLED: 13:55
SAMPLER: Don Tourangeau

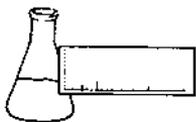
<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 110%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Jiffy Mart
REPORT DATE: September 5, 1995
DATE SAMPLED: August 23, 1995
DATE RECEIVED: August 24, 1995
DATE ANALYZED: August 29, 1995

PROJECT CODE: GIJM1930
REF.#: 78,633
STATION: Trip Blank
TIME SAMPLED: 7:50
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

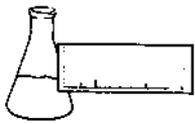
Bromobenzene Surrogate Recovery: 108%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Jiffy Mart
REPORT DATE: September 5, 1995
DATE SAMPLED: August 23, 1995
DATE RECEIVED: August 24, 1995
DATE ANALYZED: August 30, 1995

PROJECT CODE: GIJM1930
REF.#: 78,637
STATION: Duplicate
TIME SAMPLED: 14:30
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	5.1
Chlorobenzene	1	ND ¹
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	12.8
Toluene	1	62.1
Xylenes	1	254.
MTBE	10	10.8

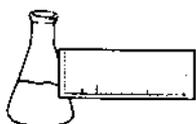
Bromobenzene Surrogate Recovery: 110%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Jiffy Mart
REPORT DATE: September 5, 1995
DATE SAMPLED: August 23, 1995
DATE RECEIVED: August 24, 1995
DATE ANALYZED: August 30, 1995

PROJECT CODE: GIJM1930
REF.#: 78,638
STATION: Equipment Blank
TIME SAMPLED: 14:36
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

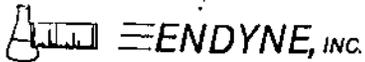
Bromobenzene Surrogate Recovery: 108%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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#5954687

CHAIN-OF-CUSTODY RECORD

14339

Project Name: JIFFY MART Site Location: WELLS RIVER	Reporting Address: GRIFFIN	Billing Address: GRIFFIN
Endyne Project Number: GJIM1930	Company: Contact Name/Phone #: PETER MURRAY	Sampler Name: Den Tol MANGEN Phone #:

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
78,633	TRIP BLANK	DI H ₂ O	✓		8-27-95 07:50	2	40ML		20	HCL	
78,634	well #3	GW	↓		17:55	↓	↓		↓	↓	
78,635	well #2	GW	↓		14:15	↓	↓		↓	↓	
78,636	well #1	GW	↓		14:30	↓	↓		↓	↓	
78,637	DUPLICATE	GW	↓		14:30	↓	↓		↓	↓	
78,638	EQUIPMENT BLANK	DI H ₂ O	↓		14:36	↓	↓		↓	↓	

Relinquished by: Signature Beth Ward	Received by: Signature Kevin Bean	Date/Time 8/24/95 10:43
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes No

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

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